

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-12. (canceled)

Claim 13. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio, the method comprising the steps of:

transmitting the data in time slots on a plurality of carrier frequencies;

broadcasting check data, via the fixed station, which indicates a position of a carrier frequency of a current time slot in a predetermined sequence;

determining, via the mobile unit, the position of the carrier frequency of the current time slot in the predetermined sequence via the check data; and

changing the carrier frequency, via both the mobile unit and the fixed station, after a predetermined time period in accordance with the predetermined sequence.

Claim 14. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 13, the method further comprising the step of:

transmitting, automatically, the check data during a logging-on mode.

Claim 15. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 13, the method further comprising the step of:

selecting one of a plurality of predetermined sequences, in order to define the carrier frequency change, wherein the check data broadcast by the fixed station continues to indicate which of the plurality of predetermined sequences is used by the fixed station.

Claim 16. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 15, the method further comprising the step of:

determining the predetermined sequences via an algorithm.

Claim 17. (currently amended): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 13, the method further comprising the steps of:

sensing which of the plurality of carrier frequencies is subject to interference; and

using, during the logging-on of the mobile unit, a carrier frequency which is prescribed by the predetermined sequence and has been sensed as being subject to interference; and

passing over the carrier frequency sensed as being subject to interference after logging-on has been completed if the carrier frequency prescribed by the predetermined sequence is passed over.

Claim 18. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 13, the method further comprising the step of:

using the 2.4 GHz ISM frequency band for transmission.

Claim 19. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 13, wherein the number of available carrier frequencies is at least 75.

Claim 20. (previously presented): A method for logging-on a mobile unit at a fixed station for a transmission of data by radio as claimed in claim 13, wherein the number of available carrier frequencies is at least 96.

Claim 21. (previously presented): A system for wire-free transmission of data between a mobile unit and a fixed station in time slots on a plurality of carrier frequencies, the system comprising:

a fixed station, the fixed station including a fixed station output device for outputting a predetermined sequence which prescribes the carrier frequencies of the time slots wherein the carrier frequency changes after a predetermined time period, and further including a fixed station HF module for transmitting the data in the time slots whose carrier frequencies are each prescribed by the fixed station output device via the predetermined sequence; and

a mobile unit, the mobile unit including a mobile unit output device for outputting a predetermined sequence which prescribes the carrier frequencies of the time slots wherein the carrier frequency changes after the predetermined time period, a further including a mobile unit HF module for transmitting the data in the time slots whose carrier frequencies are each prescribed by the mobile unit output device via the predetermined sequence;

wherein the data transmitted by the fixed station including check data which indicates a position of the carrier frequency of the current time slot in the predetermined sequence.

Claim 22. (previously presented): A system for wire-free transmission of data between a mobile unit and a fixed station as claimed in claim 21, the system further comprising:

a switching device in the fixed station for switching over between a logging-on mode and a normal transmission mode, wherein the check data is transmitted automatically if the switching device is switched to the logging-on mode.

Claim 23. (previously presented): A system for wire-free transmission of data between a mobile unit and a fixed station as claimed in claim 21, wherein each of the fixed station output device and the mobile unit output device respectively includes a plurality of predetermined sequences such that the check data continues to contain data which indicates the sequence currently in use by the fixed station.

Claim 24. (previously presented): A system for wire-free transmission of data between a mobile unit and a fixed station as claimed in claim 21, the system further comprising:

processor devices in each of the fixed station output device and the mobile unit output device which respectively calculate the predetermined sequence via an algorithm.

Claim 25. (previously presented): A system for wire-free transmission of data between a mobile unit and a fixed station as claimed in claim 21, wherein the plurality of carrier frequencies lie in a 2.4 GHz ISM radio band.